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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/091,510	12/17/1998	CHRISTOPHER TOWNSEND	2365-104	5025
6449	7590	04/09/2004	EXAMINER	
ROTHWELL, FIGG, ERNST & MANBECK, P.C. 1425 K STREET, N.W. SUITE 800 WASHINGTON, DC 20005			BROWN, RUEBEN M	
			ART UNIT	PAPER NUMBER
			2611	38
DATE MAILED: 04/09/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/091,510	TOWNSEND ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Reuben M. Brown	2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 31 December 2003.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,3-8, 10-33, 35-45, 59, 60, 65-68 and 70-85 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,3-8, 10-33, 35-45, 59, 60, 65-68 and 70-85 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/31/2003 has been entered.

***Response to Arguments***

2. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 6 is rejected under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 6 depends from a canceled claim, namely claim 2.

5. Claim 6 is rejected under 35 U.S.C. 112, 2<sup>nd</sup> paragraph as lacking antecedent basis. Claim 6 recites the limitation "the image data" in line 1. There is insufficient antecedent basis for this limitation in the claim. The instant feature of "image data" was recited in a prior version of claim 1, on which claim 6 formerly depended. However, "image data" in claim 1 is now amended to recite "video data".

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3-4, 6-8, 10-14, 16-22, 28-30, 32-33, 35-37, 39-45, 66, 68, 70, 71, 73-76, 80, 81 & 83-85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawkins, (U.S. Pat # 6,005,561), in view of Green, (U.S. Pat # 5,664,110).

Considering amended claims 1, 28 & 70, Hawkins teaches the claimed features of a digital receiver that receives video data and information data, a decoder for separating the video

data and information data, and a store for storing the received information data; see Abstract & col. 6, lines 47-49; col. 8, lines 15-45; col. 13, lines 30-40 & col. 17, lines 54-60.

Hawkins specifically teaches a 'decoder for decoding information in the media objects' (col. 6, lines 46-48), whereas the media objects may include data, text, audio, video, still pictures, etc., (col. 9, lines 34-45).

The claimed processor responsive to the stored information to output for display an interactive image derived from the stored information and video data reads on the operation of the processor necessarily included in the end-user terminal of Hawkins, see col. 11, lines 36-63 & col. 16, lines 15-20 & col. 17, lines 54-58

As for the claimed modem, Hawkins does not discuss the use of a modem to establish connection for a telecommunications link, but does discuss the desirability of using a low-bandwidth transmission system, col. 18, lines 10-12. Hawkins also discloses that the end-user terminal may be in the form of a PC, (col. 17, lines 25-35) which generally may utilize modems to transmit data over a telecommunications link. However, Hawkins does not explicitly discuss the use of modem technology. Nevertheless, examiner takes Official Notice that at the invention was made, the use of a modem in an end-user terminal for data transmission over a telecommunications link, was old in the art. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Hawkins with the well-known

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technology of a modem, at least for the known purpose of transmitting data over certain telecommunications links at high speeds.

As for the additional feature of the establishment of the connection by the modem being a result of viewer command signals, Hawkins does not provide such a teaching. However, Green (col. 4, lines 41-65; col. 10, lines 18-28; col. 12, lines 57-67) provides a disclosure of an interactive system, wherein the user manipulates an ORDER button, 62 or 72 (Fig. 3; Fig. 5), which causes the network data terminal device, DPU 10 to establish communication with a central database, DFTC 12, using a modem 38. Green teaches that the invention is applicable for use by PSTN, wired, wireless, or CATV networks, and thus its combination with Hawkins is proper. It would have been obvious for one ordinary skill in the art at the time the invention was made, to modify Hawkins, with the well known technique of utilizing a GUI in order to activate a modem to establish a telecommunications link as taught by Green, at least for the desirable advantage of enabling the user to establish the link with respect to any particular corresponding application which requires such a link, efficiently utilizing the same software application which the user may already be interacting with in order communicate over time with the remote site.

As for the specifically claimed feature of varying an interactive image, responsive to received command, Hawkins does not provide such a teaching. Nevertheless, Aker teaches that when an icon, or button is selected, it would be advantageous to vary the image by drawing a border around the selected icon, changing its color, or shading the icon, (pages 64-65, 80 & 88-

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89). It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify the combination of Hawkins & Green, with the technique of varying the display of a selected icon or button, for the desirable improvement of more positively notifying the user which icon or button has been selected, as taught by Aker.

Considering amended claims 3-4, 29-30 & 35-36, 71, 81 & 84, the claimed subject matter reads on the media objects, disclosed Hawkins, (col. 8, lines 38-41; col. 9, lines 34-56; col. 10, lines 1-15 & col. 16, lines 1-20). Program data is broad enough to read on the code, for instance included in EPG and other menus, which causes the menu to be displayed, as disclosed in Hawkins. The claimed execution of program data reads on the user navigation of the menu and its display as result of viewer interaction.

Considering claim 6, the instant claim is examined as best understood in light of the above 112 rejections. Hawkins teaches that media object may include video data, which is transmitted to/and displayed by the end-user terminal; see col. 8, lines 38-48.

Considering claims 7-8 & 73-74, Fig. 4 & col. 11, lines 26-52 of Hawkins discloses a remote control or keypad for a user to interact with the system.

Considering claims 10 & 75, the claimed storage reads on the data cache 120 of Hawkins, which stores media objects, (col. 12, lines 25-46; col. 13, lines 28-34; col. 17, lines 54-58). Thus the combination of Hawkins and Green reads on the claimed subject matter.

Considering claims 11-13, & 16 the end-user terminal in Hawkins is responsive to media objects transmitted from the head-end server to provide interactive images for the subscriber, col. 9, lines 45-52 & col. 10, lines 20-34. Thus the combination of Hawkins and Green reads on the claimed subject matter.

Considering claims 14, 17, 37, 40, 66, 68, 76 & 85, Hawkins discloses the use of interactive screens, col. 10, lines 25-41 & col. 11, lines 40-55; col. 14, lines 34-67, for numerous services, such as home shopping. Furthermore, Hawkins discloses that the user may access the menus in a hierarchical manner, col. 22, lines 55-64. As for the additional limitation in claims 14, 37, 66, 68, 76 & 85 of the interactive screens being individually displayable, Fig. 3-Fig. 10 & col. 7, lines 14-50 of Green disclose such a feature.

Considering claims 18 & 41, Official Notice is taken that at the time the invention was made, it was well known in the art to generate image data with a specific size or resolution. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Hawkins with the well-known technique of predetermined screen or image size, at least for the desirable benefit of generating the image to fit a particular target display size.

Considering claims 19-22 & 42-45, the claimed subject matter reads on a viewer scrolling through images, which is taught by Hawkins, col. 19, lines 5-12.

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Considering claims 32-33 & 83, Hawkins teaches that the media object may include video data, col. 8, lines 37-48.

Considering claim 39, the interactive data in both Hawkins & Green are transmitted to the end-user terminals.

Considering claim 80, the claimed method steps of interacting with broadcast interactive services using a receiver for receiving digital TV signals corresponds with subject matter mentioned above in the rejection of claim 1, and is similarly treated. Claim 80 recites, ‘image data’, instead of ‘video data’, which is recited in claim 1. However, ‘image data’ is broader than ‘video data’, and thus the claims are likewise analyzed.

8. Claims 5, 15, 31, 38, 65, 67, 72 & 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawkins, Green & Aker, and further in view of Hendricks, (WO 94/14284).

Regarding claims 5, 15, 31, 38, 72 & 82, Hawkins fails to specifically disclose stored information data comprising template data and a processor to construct the data representing the interactive image from received information data and the stored template data. However, Hendricks teaches a reprogrammable terminal for suggesting programs offered on a television program delivery system comprising reprogrammable software stored in memory and processed by the processor for generating and changing menu formats, templates, logos, colors of the display (page 4, lines 15-27 and pages 19-20). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hawkins by the teachings of Hendricks so that the look and feel of the system can accommodate and perform useful

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functions created by other manufacturers. Also storing template data on the local receiver, reduces the need for the instant local receiver to retrieve more of the data required by the user over the network, thereby causing the user to display information faster, and without unnecessary network delay.

Considering claims 65 & 67, Hendricks discloses plural interactive screens (Fig. 8; Figs. 11A-11E).

9. Claims 23-27 & 77-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawkins, Green & Aker, further in view of Schutte, (U.S. Pat # 5,319,454).

Considering claims 23-27 & 77-78, Green discusses the use of ID card technology to facilitate on-line shopping transactions with certain merchants to only the authorized users, (col. 5, lines 22-62; col. 10, lines 34-52) and to facilitate the transmission of user ID information, without requiring the user to enter such information at keyboard for each transaction. However, Green does not disclose that the card may be used to restrict access to certain broadcast programming.

Nevertheless, Schutte provides a disclosure directed to a customer card, which is used to control access to premium programming; Abstract; Fig. 1; col. 4, lines 50-67 & col. 5, lines 1-25. It would have been obvious for one ordinary skill in the art at the time the invention was made, to modify the combination of Hawkins & Green to provide a card that is used to control access to

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premium programming, at least for the desirable benefit of avoiding the user having to enter long PIN numbers to access premium programs, as disclosed by Schutte.

As for claim 24, Green does not teach that the card may be issued from a financial institution. Official Notice is taken that at the time the invention was made, it was well known to issue consumers, credit cards from financial institutions. One of ordinary skill in the art would have been motivated to include a means for reading credit cards from financial institutions, which would have been an advantage since there are such a high number of consumers which carry such cards, therefore a wider range of the consumers could use the system right away, without having to wait for a purchase card to be sent from each individual merchant with which the user desires to shop. Thus, it would have been obvious for one ordinary skill in the art at the time the invention was made, to modify the combination of Hawkins & Green to include any number of card readers, including credit cards, at least in order to expand the range of consumer who could use the system. Green, (col. 6, lines 63-67) teaches the use of a magnetic card reader. Regarding claim 26, the recited smart card is broad enough to read on the ID control cards 40 & 80, disclosed in Green, Fig. 15A & Fig. 15B.

10. Claims 59-60 & 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawkins, Green & Aker, and further in view of Vlahos, (U.S. Pat # 5,907,315).

Considering claims 59-60 & 79, the instant claims recite that the interactive image includes a background image that comprises a portion having a subject that corresponds with the subject of background of the preview picture, so that it appears that the background and the preview picture form a single continuous interactive image. Hawkins discusses the use of background technology, but does not explicitly discuss a constant background that has a portion that corresponds with subject of the foreground image. However, Vlahos is directed to combining a main image with a background image, such that the best possible composite image is produced, Abstract; col. 1, lines 10-35.

The instant reference teaches insertion of a picture (foreground), within a background, col. 1, lines 10-18. Vlahos overcomes the known problem of composition of pictures on a background; see col. 1, lines 30-55 & col. 3, lines 1-15. Moreover, Vlahos discusses several instances wherein the subject of the background corresponds with the subject of the background of the foreground; see col. 11, lines 9-13; col. 11, lines 30-35;& col. 13, lines 12-21. An algorithm is used, which matches the background with a background of the foreground picture, using a variety of parameters, in order to obtain the best possible balance, i.e., meshing of the images, see Abstract; col. 4, lines 42-50; col.5, lines 52-57& col. 10, lines 32-55. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Hawkins with techniques of image composition, at least for the desirable benefit of overcoming well known problems combining foreground and background images, as taught by Vlahos, col. 1, lines 10-45.

***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A) Nemirofsky Teaching of a multi-functional smart card used for PPV, VOD, electronic shopping, financial institutions, etc.

B) Diehl Generic teaching of a smart card to control access to certain broadcast programming.

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**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
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**or faxed to:**

(703) 872-9306, (for formal communications intended for entry)

**Or:**

(703) 746-6861 (for informal or draft communications, please label  
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*Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA., Sixth Floor (Receptionist).*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reuben M. Brown whose telephone number is (703) 305-2399. The examiner can normally be reached on M-F (8:30-6:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew I. Faile can be reached on (703) 305-4380. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9306 for regular communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Reuben M. Brown

*Reuben M. Brown*  
REUBEN M. BROWN  
PATENT EXAMINER